



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

BDE PROCEDURE MEMORANDUM

NUMBER: 35-05

SUBJECT: Detectable Warnings for Curb Ramps and Other Locations

DATE: June 1, 2005

This memorandum supersedes BDE Procedure Memorandum 35-03 and various portions of Section 58-1.09 of the BDE Manual as described herein. The information pertaining to detectable warnings will be incorporated in the manual in a future update

Background

Detectable warnings are a distinctive surface pattern of truncated domes used to alert people with vision impairments of their approach to streets and hazardous drop-offs. Detectable warnings were originally required in 1991 by the Americans with Disabilities Act Accessibility Guidelines (ADAAG), published by the U.S. Access Board, for the U.S. Department of Justice.

In 1994, the requirements for detectable warnings were temporarily suspended due to concerns raised about the specifications, the availability of complying products, maintenance issues such as snow and ice removal, usefulness, and safety. This suspension applied to all requirements for detectable warnings except those at boarding platforms in transit stations.

During the suspension, additional research was performed. The research determined truncated domes have a unique design that is detectable underfoot and by a cane. Other designs used in place of truncated domes such as grooves, striations, and exposed aggregate are not detectable in a sidewalk or roadway environment because of their similarities to other surface textures and defects.

On July 26, 2001 the suspension was allowed to expire; consequently, truncated dome detectable warnings were again required by law. The Illinois Division of the Federal Highways Administration (FHWA) sent a memorandum dated November 5, 2002 informing the Department of the change and BDE Procedure Memorandum 35-03 was issued on August 1, 2003.

Since the issuance of BDE PM35-03, discrepancies between the ADAAG and the Illinois Accessibility Code regarding the placement of detectable warnings have been discovered and resolved. This memorandum reflects the latest interpretations made by the FHWA and the Illinois Attorney General's Office.

Applicability

The following procedures are applicable to curb ramps and other locations requiring detectable warnings that are constructed or reconstructed on the State highway system or under local jurisdiction as part of a State highway project.

Procedures

58-1.09(b) Responsibility for Construction of Curb Ramps

Add the following to the end of this Section:

13. Detectable Warnings. Curb ramps need not be reconstructed for the sole purpose of installing detectable warnings; however, the accommodations along a route or at a location should be consistent. For instance, when an intersection improvement will result in the reconstruction of curb ramps at three of the four corners, the designer should strongly consider reconstructing the remaining curb ramps.

58-1.09(c) Design and Construction of Curb Ramps

The following supersedes the first two paragraphs of this Section:

Design and construct curb ramps according to the criteria contained herein and shown on the *Highway Standards*. Use Type A curb ramps where the area on both sides of the ramp is a planting or other non-walking area. For all other areas, use the Type B curb ramps with flared sides.

Detectable Warning Surfaces

General. Detectable warnings shall consist of a surface of truncated domes aligned in a square or triangular pattern.

1. Dome Size and Spacing. The size and spacing of the truncated domes is shown on the *Highway Standards*.
2. Contrast. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark or dark-on-light.
3. Surface Size. Detectable warning surfaces extend 24 inches in the direction of travel and the full width of the walking surface of the curb ramp, landing, or blended transition. For Type B curb ramps, the flared sides are not considered part of walking surface.

Location. Detectable warnings are required at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings are also required where sidewalks cross alleys and commercial entrances when traffic control devices (yield sign, stop sign, signals, etc.) are present.

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1. Curb Ramps, Medians, and Pedestrian Refuge Islands. Locate the detectable warning surface with the edge nearest the face of curb 6 to 8 inches back from the face of curb.
2. Rail Crossings. Locate the detectable warning surface with the edge nearest the rail crossing 6 to 8 inches from the train dynamic envelope. The train dynamic envelope is equal to 6 feet on either side of the tracks unless otherwise advised by the operating railroad.
3. Transit Platform Edges. Detectable warning surfaces at transit platform edges are 24 inches wide and extend the full length of the platform.

Engineer of Design and Environment

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